

Decision 07-01-018 January 11, 2007

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies,
Procedures and Rules for California Solar
Initiative, the Self-Generation Incentive Program
and Other Distributed Generation Issues.

Rulemaking 06-03-004
(Filed March 2, 2006)

**OPINION ADOPTING METHODS TO DETERMINE THE RENEWABLE
ENERGY CREDITS FROM RENEWABLE DISTRIBUTED GENERATION**

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OPINION ADOPTING METHODS TO DETERMINE THE RENEWABLE ENERGY CREDITS FROM RENEWABLE DISTRIBUTED GENERATION

I. Summary

This decision resolves the subsidy and measurement issues raised in Decision (D.) 05-05-011 and Rulemaking (R.) 06-03-004 for Distributed Generation (DG) facilities. We resolve these issues in the context of recently adopted Senate Bill (SB) 1, Stats. 2006, ch. 132, and our previously established policy to promote development of all renewable DG facilities in California. In taking the approach adopted herein, we also recognize our responsibility to achieve the goals of SB 1 without unduly burdening ratepayers.

SB 1 codified the state's commitment to the creation of a self-sustaining solar market, which we interpret to mean one in which ratepayer incentives are no longer necessary to promote installation of solar DG facilities. In D.06-08-028, the Commission adopted a rebate schedule under which the incentives offered to solar system owners and paid by ratepayers decline when certain capacity targets are met.¹ Underlying this approach is the premise that the rebates offered should be calibrated to the realities of the market, such that they are sufficient to motivate installation of solar facilities and should be reduced as the economics of solar become more attractive.

¹ The Commission has modified this decision to make specific conforming changes to reconcile the program as developed by the Commission with SB 1.

We find that Renewable Energy Credits (RECs)² are one among several factors that may affect the economics of solar and other renewable DG facilities, and as such may play an important role in driving the deployment of renewable DG in California and achieving the goals of California Renewables Portfolio Standard (RPS).³ In light of this finding, and to facilitate the goals of SB 1, we conclude that renewable DG facility owners should retain 100% of the RECs associated with their facilities. We also recognize that the value of RECs, combined with other market factors, may drive the deployment of solar DG in such a way that SB 1 objectives can be achieved with less ratepayer support than that authorized by the legislature. Thus, consistent with our obligation to protect ratepayers from undue expense, we will revisit the California Solar Initiative (CSI) incentives with an eye toward reducing them in light of the pace of market development. This assessment will be conducted as part of the CSI review process established in Phase 1 of this proceeding. Similarly, we will examine the level of incentives offered under the Self-Generation Incentive Program (SGIP) given the pace of deployment for other types of renewable DG.

² “A REC consists of the renewable and environmental attributes associated with the production of electricity from a renewable resource.” D.03-06-071. Findings of Fact (F.O.F.) 2 and SB 107 (Stats. 2006, ch. 464), which codified and expanded the definition of RECs. Pub. Util. Code § 399.12(g)(2).

³ The California RPS was established pursuant to SB 1078, (Sher) which required procurement of at least 1% per year of renewable energy in California with a goal of reaching 20% renewable energy by 2017. It has recently been updated by SB 107 (Stats. 2006, ch. 464) which, among other things, advanced the 20% goal to 2010 (Pub. Util. Code § 399.15(b)(1)) and provided legislative definition of REC (Pub. Util. Code § 399.12(g)).

Because we allow renewable DG system owners to retain 100% of their RECs, utilities will not be counting the output of renewable DG facilities that have received ratepayer incentives toward their RPS obligations at this time.⁴ Thus, we see no reason to impose specific metering requirements beyond those already established in previous decisions. If and when the Commission authorizes unbundled RECs to be applied toward the RPS, it may be necessary to revisit the metering requirements to ensure the number of RECs sold is an accurate reflection of renewable DG system output, consistent with the measurement requirements adopted for grid connected renewable facilities and the Western Renewable Energy Generation Information System (WREGIS) tracking system.⁵

II. Background

DG is a parallel or stand-alone electric generation unit generally located within the electric distribution system at or near the point of consumption.⁶ Self generation refers to DG technologies that are installed on the customer's side of the meter to provide electricity to the customer for a portion of its load. The Commission has long recognized the value of DG in the resource planning and procurement context and has made a substantial effort to encourage the installation of DG in California. The joint agency Energy Action Plan II, issued

⁴ Consistent with prior Commission decisions, nothing in this decision precludes the output of renewable DG facilities from being counted towards RPS goals, if and when the Commission authorizes unbundled RECs to be applied toward the RPS.

⁵ WREGIS is a regional renewable energy tracking and registry system. See <http://www.energy.ca.gov/portfolio/wregis/index.html> for more information.

⁶ R.04-03-017, p. 6.

by the California Energy Commission (CEC) and this Commission, emphasizes the state's commitment to DG development. Toward that end, the Commission, in coordination with the CEC, has implemented several policies and programs that provide financial incentives to DG owners to promote DG deployment. In 2001, the Commission established the SGIP to provide incentives to DG facilities with differential incentives for renewable and super clean DG units. The Commission expanded the SGIP's budget for solar programs by \$300 million in December 2005 to spur additional solar development, and introduced the CSI. In 2006, the Commission committed a total of \$2.8 billion (including the \$300 million) to the CSI with the goal of installing 3000 megawatts of new solar DG facilities in the service territories of the California investor-owned utilities (IOUs) between 2006 and 2016.⁷ We then opened this Rulemaking to develop program rules and policies for the CSI and the SGIP, and to continue addressing general policies related to DG.

We established Phase II of this proceeding to consider, among other issues, two issues that were identified in D.05-05-011 related to the treatment of DG output for the purpose of compliance with the requirements of the California's RPS. In that decision, we clarified how renewable DG can participate in the RPS and explored how the RECs from renewable DG facilities might be counted towards the IOUs' RPS obligations.⁸ A REC consists of the renewable and

⁷ The total included 2640 MW for CSI and 360 MW for the CEC's New Solar Homes Partnership. Subsequent passage of SB 1 necessitated changes to the exact budget and goals, which has been addressed in an order, but the basic outline of the Commission's program remains the same.

⁸ The CEC is responsible for determining RPS eligibility of generation and verifying load-serving entities' (LSEs) claims of RPS-eligible energy deliveries.

environmental attributes associated with the production of electricity from a renewable resource and is an accounting tool for measuring RPS compliance.⁹ In D.05-05-011, we concluded that the owners of renewable DG facilities own the RECs associated with the generation of electricity from those facilities, but we also concluded that we needed to consider:

1. How to calculate the ratepayers' share of DG RECs to fairly reflect the subsidies they have paid to DG projects.
2. How to measure a DG project's output with sufficient accuracy to support the use of the output for RPS purposes.

By a ruling dated July 12, 2006, the Administrative Law Judge (ALJ) requested comments on the above issues.

Comments were filed by Americans for Solar Power (ASPv), R. Thomas Beach (Beach), Californians for Renewable Energy (CARE), PV Now, joined by California Solar Energy Industries Association and the Vote Solar Initiative (hereinafter "The Joint Solar Parties"), City and County of San Francisco (CCSF), the Commission's Division of Ratepayer Advocates (DRA), the Green Power Institute (GPI), Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E)/Southern California Gas Company (SoCalGas), and the Independent Energy Producers Association (IEP).

Reply comments were filed by ASPv, Beach, CARE, Joint Solar Parties, CCSF, DRA, GPI, PG&E, SCE, SDG&E/SoCalGas, and The Utility Reform Network (TURN).

⁹ D.03-06-071. F.O.F. 2; SB 107, new Pub. Util. Code § 399.12 (g).

In the following sections, we address parties' comments on the subsidy questions followed by a discussion of the subsidy issues. Because of the outcome of this issue, it is unnecessary to resolve the measurement issues at this time.

III. Subsidy Issues

A. Overview

The July 12 ALJ Ruling requested proposals on the following subsidy issues:

- What method should the Commission use to determine the portion of a REC from a renewable DG facility that was supported by a ratepayer subsidy?
- Should net metering benefits be considered in the calculation of ratepayer subsidies, and if so, how?

Parties were generally against apportioning the REC benefits between ratepayers¹⁰ and DG owners, but felt that one or the other should retain them. However, they were sharply divided about whether the ratepayers or renewable DG owners should receive the benefits.

Parties had opposing views regarding whether net metering should be treated the same as SGIP and CSI in determining the apportionment of RECs. Some argued that net metering provides a subsidy to DG owners similar to programs such as SGIP, or CSI and others argued that it does not.

As stated above, the parties briefed several issues unnecessary to resolve in today's decision. Below, we address the following two questions:

- Should RECs be apportioned between ratepayers and renewable DG owners?

¹⁰ We clarify that in this context the IOUs would be receiving the benefits of RECs on behalf of the ratepayers.

- Who should receive the REC benefits for the CSI and SGIP programs?

B. Should RECs Be Apportioned?

1. Parties' Comments

There is almost unanimous agreement among parties against apportioning the REC benefits. DRA, ASPv, Joint Solar Parties, IEP, and CCSF specifically recommend against dividing RECs between renewable DG system owners and the IOUs. These parties generally argue that such an approach would add to the complexity and administrative burden of the process with little to gain. For example, the Joint Solar Parties recommend against monetizing or dividing REC ownership, because such an attempt would introduce unnecessary complexity, add administrative cost to the program, and would be contrary to supporting the rapid development of solar markets. The Joint Solar Parties claim that “this additional complexity also negatively impacts marketers and installers by increasing the administrative and marketing burdens they face thereby directly increasing their costs.”¹¹ In addition, the Joint Solar Parties argue that apportioning RECs would be a departure from standard practice in many other states that have solar programs separate from their RPS programs. ASPv points to the difficulty of tracking and accounting for RECs based on the years it has taken to develop and implement the WREGIS tracking system. IEP adds that attempts at apportioning RECs would undermine the transparency and consistency that is sought through WREGIS. CCSF provides a numeric example that illustrates the REC benefits that would be accrued to a single LSE if RECs

¹¹ Opening Comments of Joint Solar Parties, p. 11.

were to be divided among all RPS-obligated LSEs. CCSF also explains that it would be a multi-step process to devise a methodology to apportion RECs.

According to CCSF,

“any method developed would need to track generation and consumption from all eligible customer generators statewide, take into consideration declining rebates and potentially a declining ratepayer contribution to the investment in a DG facility, provide a means to equitably assign subsidized renewable DG RECs among all LSEs that are obligated to participate in the RPS program (IOUs, Energy Service Providers, and Community Choice Aggregators), and track load shifting among LSEs to ensure that the assignment of RECs is proportionate to the contributions made by the ratepayers of a given LSE.”¹²

2. Discussion

In D.05-05-011, we held that renewable DG system owners own 100% of the RECs associated with their facilities.¹³ At the same time, we recognized that the ratepayers make significant contributions towards renewable DG facilities through subsidies and the existence of those subsidies must be taken into consideration. We observed the difficulty this poses for RPS credit allocation, but envisioned we would account for the impact of the ratepayer contribution by adopting a methodology that divided RECs between the ratepayers and the DG system owners. In the July 12 ALJ Ruling, we directed the parties to propose ways to accomplish that allocation.

¹² See CCSF Comments, August 4, 2006, p. 2.

¹³ Ordering Paragraph 2.

As noted above, most parties argued against such an allocation process. After reviewing parties' comments, we are now convinced that we should not apportion the REC benefits. From a practical standpoint, it would make little sense to expend the effort necessary to do so, because as the majority of the parties have argued, apportioning RECs would require extensive work and would add unnecessary complexity to our process without providing corresponding benefits. For instance, CCSF provided an example which illustrates a multi-step and complex accounting process for apportioning RECs. We are also concerned that apportioning RECs would create tracking and accounting issues that would have to be addressed. Therefore, we do not require that RECs be divided between the ratepayers and renewable DG owners. However, that holding is not the end of our inquiry. We now have to determine who should receive the REC benefits: the ratepayers or the renewable DG owners?

C. Who Should Receive The REC Benefits?

1. Comments Supporting that IOUs Receive the REC Benefits

Those who believe that ratepayers, through IOUs, should receive the DG REC benefits argue that ratepayers have already paid for the environmental attributes of DG investment and should not have to pay twice for the same benefits (e.g., when an IOU or LSE buys renewable energy to meet its RPS requirements). PG&E, SCE, and TURN are concerned about ratepayer double payment. They argue ratepayers would end up paying twice for the same renewable output, if utilities have to pay for the renewable attributes in addition

to the output of the DG facilities.¹⁴ These parties argue that ratepayers pay for the environmental attributes of a renewable DG facility through the incentives provided to renewable DG owners. To the extent ratepayers provide green subsidies to customers installing renewable DG systems, these parties believe ratepayers should receive the green benefits from the DG output.

These parties suggest RECs from renewable DG facilities which receive ratepayer funds should be counted towards the utilities' RPS obligation. PG&E clarifies that this policy should apply only to renewable DG units that receive incentives that are solely based on the renewable attributes of their facilities. In other words, subsidies that are provided to both renewable and non-renewable projects would not be subject to this requirement. TURN also supports this view.

PG&E further clarifies that the new policy should apply only to projects which receive green incentives after these new rules are adopted. SCE adds that this approach is similar to the treatment of central station renewable generation in the RPS program where renewable generators confer the right to the environmental attributes of their output on the IOU, in exchange for payment for their power. Similar to SCE, GPI believes that grid distributed renewables and customer side of the meter (CSM) DG units who receive incentives should be treated equivalently. GPI also supports TURN's position, citing to D.05-05-011, p. 3:

¹⁴ As several parties have noted, RECs are currently bundled with the energy produced by DG units and, as such, have no value in the current regulatory compliance structure. However, if in the future, RECs are unbundled from underlying energy production, they would have a value separate from the energy and could be bought and sold for compliance purposes. Our discussion of RECs refers to this condition.

“The RPS program should avoid developing rules for DG renewables that confer any advantage or disadvantage to these systems compared with grid-distributed systems... RPS program rules should strive to provide equal treatment for renewables that are grid distributed, and renewables that are on the customer side of the meter, even when the rules specific to these two different types of renewables have to be different.”

GPI interprets “this principle to mean that DG RECs should count towards the California RPS obligation of LSEs in the same way that RECs from-grid-distributed renewables are counted.”¹⁵ GPI further argues that “whether the Photovoltaic (PV) system is connected on the customer’s side of the meter should not make any difference in terms of how it counts towards the RPS.”¹⁶ GPI proposes to allow LSEs to count the energy from renewable CSM DG towards their RPS target. SDG&E/SoCalGas have a slightly different view. They propose adding all the value provided to DG facilities and subtracting the value of energy provided to the ratepayers to determine if there is a positive subsidy from ratepayers to DG facilities. They recommend we use this information to determine if, and over what period, all RECs should accrue to ratepayers.

SCE proposes that the entire output of a renewable DG facility that has received ratepayer-funded subsidies count towards the RPS obligation of all LSEs. SCE argues that the purpose of the renewable DG subsidy is to encourage customers to install renewable DG facilities that would not be constructed

¹⁵ GPI Opening Comments, p. 3.

¹⁶ Id.

without the subsidy. SCE claims utility customers fund numerous subsidy programs such as SGIP, and CSI, and therefore, should receive the renewable benefits of DG facilities that receive those funds. Otherwise, SCE contends that ratepayers would be paying twice for the same environmental attributes, because ratepayers would pay once by providing the incentive and again by either paying the system owner for the RECs, or by having to acquire additional renewable power to meet the IOU's RPS obligation. SCE proposes that if DG owners choose to participate in any subsidy program, 100% of any environmental attributes associated with their generation be transferred to the ratepayers who pay to fund the various renewable DG subsidy programs. TURN also agrees that ratepayers should not pay twice for RPS compliance by funding rebates and incentive programs and also paying separately for RECs. Therefore, TURN supports SCE's proposal.

PG&E proposes to allow the utilities to count the entire output of renewable DG towards their RPS obligations, but only for projects which receive subsidies that are unique to renewables. TURN argues the Commission has never held that DG owners could separately sell 100% of their RECs for RPS compliance. Based on this argument, TURN contends it would be unreasonable for any renewable DG system owner to rely on any assumed revenues from selling RECs in making investment decisions. Furthermore, TURN maintains allowing renewable DG owners to sell their RECs to another entity would endorse double counting.

2. Comments Supporting that Renewable DG Owners Retain the REC Benefits

Those who support allowing renewable DG owners to keep their REC benefits, argue that:

- The subsidies paid by ratepayers cover the capital costs of DG facilities and not the environmental attributes from the energy produced by these facilities;
- System owners are responsible for the majority of the investment and assume the majority of risk associated with DG facilities and therefore they should be allowed to retain all RECs;
- Allowing ratepayers to retain RECs could hinder the goals of encouraging deployment of renewable DG;
- The benefits of renewable DG accrue to ratepayers regardless of whether or not RECs are transferred to the utility for compliance purposes;
- The incentives provided to support renewable DG deployment are provided to capture benefits other than those embodied by RECs (e.g., peak capacity) so concerns about paying twice for the same benefits are incorrect;
- It is unclear if subsidies are being provided per se, since the benefits DG provides to ratepayers may more than offset the costs to ratepayers;
- A REC is a property right and therefore there will be a taking issue if the Commission holds the REC should be transferred to the LSEs.¹⁷

IEP and ASPv argue that incentives provided by ratepayers support non-environmental benefits and thus, the claim that RECs should accrue to the utilities is unsupported. IEP contends that incentives support energy and capacity benefits rather than environmental attributes of renewable DG. ASPv argues rebates do not distinguish between environmental and non-environmental benefits such as resource diversity, and transmission and

¹⁷ In view of our disposition of the issue of ownership of RECs, this argument will not be addressed further.

distribution savings. CCSF contends that DG incentives do not pay for renewable attributes of DG. CCSF points to other benefits such as demand reduction, and reduced utility procurement risk as ancillary benefits that should be taken into account.

Beach supports renewable DG owners receiving 100% of the value of the RECs associated with the DG facility. He asserts that California ratepayers realize substantial benefits from renewable DG even without directly receiving the associated RECs. He identifies several benefits as “baseline” value. For example, he argues that renewable DG will help the IOUs meet their RPS even if the RECs associated with that DG are not transferred to the IOU. He explains that renewable DG removes retail load from IOUs’ system; thereby reducing the amount of renewable generation the utility must buy to meet its RPS goal.

The Joint Solar Parties assert the SGIP and CSI incentives were designed to offset part of the upfront capital costs of eligible solar systems and were never intended to be used to procure environmental attributes or RECs for inclusion in RPS. As a result, the Joint Solar Parties argue ratepayers have never paid for the RECs and therefore are not entitled to them.

CCSF discusses how additional revenue from REC sales would encourage new renewable DGs to be built, increasing the amount of renewable generation available to meet California’s RPS requirement.

3. Discussion

SB 1¹⁸ directs the Commission and the CEC to implement the CSI consistent with specific requirements and budget limits set forth in the

¹⁸ SB 1, Stats. 2006, ch.132, goes into effect in January 1, 2007.

legislation. The overriding goal of SB 1 is to achieve a self-sustaining solar market, in which ratepayer incentives are no longer needed to promote installation of solar DG facilities. Our decision today is guided by this statute, which affects new solar DG projects, and our policy to encourage installation of all renewable DG facilities in California.

Currently, a variety of incentives and tariff options such as direct renewable DG incentives, net metering and waived interconnection fees exist to encourage and reward investment in renewable DG. For example, SGIP provides incentives to solar, wind and other renewable DG facilities. The CSI incentives, established in D.06-08-028, are designed to facilitate the goals of SB 1 by making the economics of solar more attractive to potential facility owners. The level of incentives are based on our estimation of the various factors that impact the investment decision, including system costs, electric rates, the availability of net metering, cost of capital, and federal tax incentives. The incentives offered under the CSI are intended to fill the value gap between what prospective system owners receive absent an incentive, in light of the various factors affecting system economics, and what prospective owners need to receive in order to be willing to invest in a solar DG system.

RECs represent another factor that may play an important part in the decision to invest in a solar or other renewable DG systems by providing an additional source of value from which DG system owners can benefit. This value is derived fundamentally from the role that RECs play in backing “green claims.”¹⁹ Such claims can be retained by the DG system owner, or they can be

¹⁹ A green claim is an assertion of the environmental benefits resulting from a given action. In the case of renewable DG, green claims may embody the host of positive

Footnote continued on next page

sold to another party for monetary value. Under this scenario, the right to any green claims is transferred to the buyer.

A number of parties argue that RECs do in fact play an important role in the decision to invest in a renewable DG system. To that end, they argue that taking RECs away from renewable DG owners could adversely impact renewable DG investment.

Unfortunately, little information is currently available about the value of RECs, either in driving current decisions to invest in solar DG facilities or in such future decisions. A number of parties have provided information regarding the value of RECs in other states. We are reluctant to rely on these values, because values from REC markets in other states may not be indicative of what will occur in the California context. At this juncture, we have no reason to believe California will be in the same situation or that a REC market in California will produce the same results. In comments on the Proposed Decision, TURN suggests imputing a value of \$25/MWh to RECs.²⁰ Should a system owner chooses to retain the RECs, this value would be used as the basis for reducing the CSI rebate for which the system is eligible. The data presented by TURN to evaluate RECs is not supported by the record in this proceeding and cannot be used to adjust the level of incentives at this time.

externalities that renewable facilities provide, including all avoided emissions that would have otherwise resulted. Central to this concept is the idea of additionality, specifically that the action taken will provide environmental benefits beyond what would have occurred if the action had not been taken.

²⁰ The proposed \$25/MWh is based on the latest data from the Evolution Markets' web site.

That said, we agree that RECs could have significant value and may play a critical role in decisions to invest in renewable DG. For example, even if RECs have zero value from a resale or financing perspective, they may be fundamental to making decisions to install renewables to the extent that they enable customers to make green claims. If ownership of RECs is transferred to another party, DG system owners would not be able to make valid green claims. However, we cannot now determine the value of solar or other renewable DG RECs, nor can we determine the impact that transferring the RECs from DG owners to ratepayers would have on the development of DG solar projects. The future role and value of RECs in motivating solar installations depends on many factors, including whether California migrates to an unbundled REC-based RPS regime, in which the RECs can be purchased separately from the underlying energy by an RPS-obligated entity to meet its renewable energy requirements, as well as the level of demand for RECs in the voluntary market.

Our policy priority in developing the CSI program is to achieve the goals of SB 1, specifically to encourage solar installation and create a self-sustaining solar market. Thus, we are reluctant to make a decision that could potentially discourage investments in DG solar projects and jeopardize this objective. To the extent RECs have any value, whether explicitly through the sale of RECs into a voluntary or a compliance market, or implicitly, by enabling system owners to make green claims, they may provide a benefit, which could affect the decision to invest in solar DG systems. Transferring RECs from DG system owners to ratepayers would remove that potential benefit and thereby could adversely impact decisions to invest in solar and other renewable DG projects.

Allowing solar DG system owners to retain the RECs produced by their facilities is also consistent with the long-term goal of transitioning the solar industry away from ratepayer incentives to a self-sustaining model in which no such incentives are necessary. To the extent that RECs may prove to have any value, whether explicitly or implicitly as discussed above, they could supplement and eventually, in combination with other elements of economic value, replace altogether ratepayer incentives as these incentives are phased out.

In addition, allowing solar system owners to retain the RECs produced by their systems is aligned with the performance-based orientation of SB 1. The amount of RECs, and thus the value that can be derived from them, is directly related to system output. RECs therefore provide system owners an additional incentive to maintain their systems. This incentive exists for the duration of the life of the system.

Finally, we believe that transferring the RECs to the ratepayers as a condition of receiving ratepayer incentives, whether under the CSI or the SGIP, would run afoul of the policy articulated in D.02-10-062 to encourage the installation of renewable DG facilities. In that decision we included renewable DG in our definition of eligible renewable generation under the RPS to encourage installation of additional renewable DG facilities.²¹ We fail to see how transferring the RECs to the utilities as a condition of receiving ratepayer incentives, whether under the CSI, SGIP, or via net metering, would encourage renewable DG installation. Rather, such a transfer might detract from system economics and perceived benefits, thereby discouraging renewable DG

²¹ D.02-10-062, p. 21.

investment. If, however, we allow system owners to retain their RECs, they will be able to benefit from any demand for RECs whether in the compliance market, if and when the state migrates to an unbundled REC regime for RPS compliance purposes, or in the voluntary market.²²

For all of the reasons stated above, we will allow solar and other renewable DG facility owners to keep 100% of the RECs associated with their facilities, irrespective of whether or not they avail themselves of incentives provided under the CSI or SGIP. As the owners of the RECs, system owners are free to do what they want with them, including expressly transferring the ownership right to another entity.²³ However, in making this decision, we recognize that in pursuing any legislative mandate, or our own policy initiatives, it is our responsibility to ensure that ratepayers do not pay more than is necessary to achieve the goals sought therein. Currently, ratepayers bear the costs of the CSI and the SGIP. As noted above, the incentives under the CSI are based on our estimation of what is required to promote solar installation consistent with the goals of SB 1. A similar rationale underlies the level of incentives developed in the context of the SGIP.

²² In comments on the Proposed Decision, TURN argues that our policy should only apply to new DG facilities installed after January 1, 2007 because it would be unreasonable for any renewable DG system owner to rely on any assumed revenues from selling RECs in making investment decisions. How and whether RECs from existing and new DG facilities could participate in the RPS is outside the scope of this proceeding and is appropriately addressed in R.06-02-012.

²³ Nothing in this decision should be construed to conflict with any other relevant statutory requirements, including the requirements under Senate Bill (SB) 107.

As conditions change, the level of incentive necessary to motivate renewable DG installation may also change. For example, electric tariffs may change making solar more or less attractive, the federal tax credit may or may not be renewed, system costs could decline at a faster or slower rate than anticipated, and importantly, RECs may provide an important source of value to system owners. The value of RECs should be included with the other relevant factors affecting system economics to determine whether a change in the incentive level or schedule is appropriate. The totality of factors and their collective influence on system economics and their impact on the pace of renewable DG market development is what matters. We see no reason to attempt to adjust the level of CSI or SGIP incentives because of REC ownership alone. At some point, it may be reasonable to recalibrate the CSI and the SGIP incentives to reflect prevailing market conditions, including the benefits system owners derive from RECs. It is our intention to evaluate the incentives being offered on a going forward basis in light of the pace of market development. We will conduct this review as envisioned in D.06-08-028, under which we established a CSI review process, including whether the value of RECs indicates that a change in the incentive level or schedule is appropriate.

In comments on the Proposed Decision, SCE interprets Pub. Util. Code § 2851(e)(1) to mean that any ratepayer funds that solar DG system owners receive should be counted against the overall CSI budget. We disagree. We believe that only direct incentives, i.e., ratepayer moneys that are specifically earmarked for CSI-eligible solar technologies, should be included as part of the CSI budget. Thus, ratepayer funds that are provided to support other programs, but may, as a secondary benefit, promote solar DG, should not be included as part of the CSI budget.

D. Should Net Metering Benefits Be Considered in the Calculation of Ratepayer Subsidies?

1. Parties' Comments

TURN, PG&E, SCE, and SDG&E/SoCalGas argue that net metering is a subsidy that should be considered in our calculation of ratepayer subsidies. TURN considers net metering as a financial subsidy exclusively for solar and wind. TURN submits that "net metering is explicitly intended to recognize and reward the renewable attribute of enrolled generation."²⁴ As a result, TURN argues that a DG facility's enrollment in a net metering tariff should trigger the transfer of REC. PG&E also notes that for a variety of public policy reasons, the Legislature and the Commission have instituted programs and rules that promote renewable DG, and argues that utilities should be allowed to count the output of renewable DG in meeting their RPS targets.²⁵

SDG&E/SoCalGas offered a method to determine the subsidy by subtracting the avoided energy cost from the billed amount.

In contrast, CARE, CCSF, and Beach argue that we should not include net metering in determining claims on DG REC, because it is not a subsidy. Beach argues the net metering provides a benefit to other ratepayers for which the net metered customer will not be compensated through the net metering tariffs. CARE contends that net metering is not a subsidy. CCSF argues net metering is an accounting mechanism that does not compensate DG customers for excess power above their usage and as such it is not akin to a power purchase agreement. CCSF notes that "unless the customer and the LSE

²⁴ See TURN Reply Comments, p. 5.

²⁵ See PG&E's Comments, August 4, 2006, pp. 3, 4.

provide for the transfer of the RECs by contract or in a net metering service agreement, the REC should be the exclusive property of the DG owner.”²⁶

2. Discussion

In our July 12 ALJ Ruling, we specifically asked whether net metering benefits should be considered in the calculation of ratepayer subsidies. In the context of the cost benefit methodology being developed in Phase II of this proceeding, the magnitude of any subsidies being provided by ratepayers will need to be reflected, including those that may be provided via the net metering tariff. However, whether or not a subsidy is being provided through net metering, and if so, the magnitude of that subsidy is not relevant to the issue of REC ownership since we are not conditioning receipt of ratepayer incentives on transferring the renewable DG RECs to the utilities. Net metering is a benefit to DG system owners, and plays an important role in the decision to invest in a renewable DG system. This positive influence may be reflected in the pace of development of the renewable DG market, much like other factors such as electricity rates, system costs, the availability of the federal tax credit, and the value of RECs. As in the case of RECs, if the value system owners receive via net metering is such that fewer direct incentives like those provided under the CSI or SGIP are warranted, we will consider reducing those incentives accordingly. However, as we observed above in the context of the REC discussion, it is the collective influence of multiple factors on the pace of deployment that will be determinative of whether an incentive reduction is appropriate.

²⁶ See CCSF’s Comments, August 4, 2006, p. 5.

In comments on the Proposed Decision, TURN opposes the allocation of RECs to the owners of renewable DG facilities and argues that if a renewable DG facility owner sells the RECs from the facility to another entity, the renewable DG facility should not be eligible to take advantage of any tariff where eligibility is contingent on the facility being renewable, such as net metering.

TURN argues that net metering is provided exclusively to small distributed wind and solar facilities because of the renewable nature of these facilities. As a result, TURN argues if a facility owner sells the RECs produced by its facility, the output from the facility is stripped of its renewable attributes and the underlying electricity becomes indistinguishable from non-renewable commodity energy. Thus, a renewable facility whose power has been stripped of its RECs should forfeit its net metering eligibility since the power it produces is no longer renewable.

We disagree. Eligibility for net metering as established in Pub. Util. Code § 2827 (b)(2) is predicated on the technical characteristics of the facility generating energy, not the characteristics of or the attributes associated with the energy the facility produces.²⁷ Section 2827 (b)(2) states:

"Eligible customer-generator" means a residential, small commercial customer as defined in subdivision (h) of Section 331, commercial, industrial, or agricultural customer of an electric service provider, who uses a solar or a wind turbine electrical generating facility, or a hybrid system of both, with a capacity of not more

²⁷ In addition, the definition of RECs refers to the production of electricity and not necessarily the technical characteristics of the underlying generation facility.

than one megawatt that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with the electric grid, and is intended primarily to offset part or all of the customer's own electrical requirements.”

Nothing in the above definition suggests that the disposition of the RECs has any bearing on a facility's eligibility to participate in net metering. Regardless of whether or not the environmental attributes have been stripped off, sold, or otherwise separated from the energy a renewable DG facility produces, the technical features of the underlying generating technology remain unaffected for purposes of determining net metering eligibility. A wind turbine is still a wind turbine and a solar cell is still a solar cell irrespective of the disposition of the RECs and energy produced by these facilities. Taken to its logical extreme, TURN’s reasoning would imply that a non-renewable facility that procures RECs from a small wind or solar facility should be eligible for net metering. This is an unreasonable result.

IV. Measurement Issues

D.05-05-011 stated that DG participation in the RPS program is hindered by the problem of measuring the electric production from DG facilities.²⁸ In the July 12 ALJ Ruling, we sought comments on the following questions:

- How can the Commission measure DG output for purposes of RPS?
- Can meters be installed and if so, what type, and for what size systems?

²⁸ See D.05-05-011, p. 6.

- If meters are not reasonable for certain smaller systems, what method can be used to measure DG output for these systems?
- How can the Commission ensure that electrical generation consumed on the customer side of the meter is added to the utility's total retail sales?

The above issues would apply only if the output from renewable DG were to be used by the utilities to meet their RPS obligations. Given the approach adopted here to allow system owners to retain 100% of their RECs, utilities will not be counting the output of renewable DG in their RPS calculations at this time. Therefore, the above measurement issues are unnecessary to address at this time. If and when the Commission authorizes unbundled RECs to be applied toward the RPS, it may be necessary to revisit the metering requirements to ensure the number of RECs sold is an accurate reflection of renewable DG system output, consistent with the measurement requirements adopted for grid connected renewable facilities and the WREGIS tracking system.

V. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Maryam Ebke is the assigned ALJ for this portion of the proceeding.

VI. Comments on Proposed Decision

The proposed decision of Commissioner Peevey in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and Rule 14.2(a) of the Commission's Rules of Practice and Procedure. Comments and/or reply comments were filed by ASPv, Beach, CARE, PV Now joined by CALSEIA, and Sun Light Power Co., CCSF, GPI, PG&E, SCE, California Building Industry Association, TURN, RECOLTE, Vote Solar, The Alliance for Retail Energy Markets, and Consol. We have addressed the comments in the sections

pertaining to the issues raised and have modified the final version of this decision as appropriate.

Findings of Fact

1. There is almost unanimous agreement among parties against apportioning RECs between the load serving entities on behalf of the ratepayers and renewable DG system owners.
2. Apportioning RECs between ratepayers and renewable DG owners would either be highly arbitrary or highly complex.
3. Direct incentives, like those offered through the SGIP and the CSI, tariff options like net metering, and waived interconnection fees exist to encourage and reward investment in renewable DG.
4. RECs represent another factor that may play an important role in the decision to invest in solar or other renewable DG facilities.
5. Little information is available regarding the value of RECs.
6. Values from REC markets in other states may not be indicative of what will occur in the California context.
7. Even if RECs have zero value from a resale perspective, they may be fundamental to making decisions to install renewables because they may enable customers to make green claims as defined in this decision.
8. If DG system owners transfer their RECs, they would not be able to legitimately make green claims.
9. The future role and value of RECs in motivating solar and other renewable DG installations depends on many factors including whether California migrates to an unbundled REC-based RPS regime, as well as the level of demand for RECs in the voluntary market.

10. To the extent RECs have any value, whether explicitly through the sale of RECs into a voluntary or a compliance market, or implicitly, by enabling system owners to make green claims, they may provide a benefit, which could affect the decision to invest in renewable DG systems.

11. Transferring RECs from renewable DG system owners to ratepayers could adversely impact decisions to invest in solar and other renewable DG projects.

12. Allowing solar DG system owners to retain the RECs produced by their facilities is consistent with the long-term goal of making the solar industry self-sufficient.

13. Allowing solar system owners to retain the RECs produced by their systems is aligned with the performance based orientation of SB 1.

14. Transferring the RECs to ratepayers as a condition of receiving ratepayer incentives, whether under the CSI or the SGIP, would run afoul of the policy articulated in D.02-10-062 to encourage the installation of renewable DG facilities.

15. If renewable DG system owners retain the RECs, then, system owners would have the option of selling their RECs into the compliance market, thereby enhancing the economics of renewable DG, if and when the Commission adopts an unbundled REC regime for RPS compliance.

16. Transferring the RECs from renewable DG systems to the ratepayers as a condition of receiving ratepayer incentives would not encourage renewable DG installation.

17. As conditions change, the level of incentives necessary to motivate renewable DG installation consistent with the goals of SB 1 and the SGIP program may change.

18. Many factors, including the value of RECs collectively, influence renewable DG system economics and thus the pace of renewable DG market development.

19. At some point, it may be reasonable to adjust the CSI and the SGIP incentives to reflect the realities of the market, including the benefits system owners may derive from RECs and net metering.

20. Net metering provides a benefit to renewable DG system owners, and plays an important role in the decision to invest in a renewable DG system.

21. Transferring the RECs from renewable DG systems to the ratepayers as a condition of receiving net metering would not encourage renewable DG installation.

22. Because system owners retain 100% of their RECs according to this decision, utilities will not be able to count the output of ratepayer supported renewable DG facilities in their RPS calculations at this time.

23. Eligibility for net metering as established in Pub. Util. Code § 2827(b)(2) is predicated on the technical characteristics of the facility generating energy, not the characteristics of or the attributes associated with the energy the facility produces.

24. Under the approach adopted in this decision, there is no need to impose any measurement requirements beyond those to which renewable DG system owners are already subject.

Conclusions of Law

1. In D.02-10-062, we declared that renewable DG is an RPS-eligible resource.
2. RECs should not be apportioned between ratepayers and renewable DG owners.

3. The Commission should allow all renewable DG system owners to retain the RECs produced by their facilities irrespective of whether or not they receive ratepayer funding from programs such as CSI, SGIP, or net metering.

4. The Commission should not adjust the level of CSI or SGIP incentives based on the value of RECs or net metering alone.

5. The Commission should consider reducing renewable DG incentives, if the pace of market development indicates that that fewer direct incentives, such as those provided under the CSI or SGIP are warranted.

6. Only direct incentives, i.e., ratepayers moneys that are specifically earmarked for CSI-eligible solar technologies, should be included as part of the CSI budget.

7. If and when the Commission authorizes unbundled RECs to be applied toward RPS compliance, it may be necessary to revisit the metering requirements to ensure the number of RECs sold is an accurate reflection of renewable DG system output, consistent with the measurement requirements adopted for grid connected renewable facilities and the WREGIS tracking system.

8. This decision should be effective immediately to resolve the uncertainty of RECs ownership in the circumstances addressed by this decision.

O R D E R

IT IS ORDERED that:

1. Owners of Renewable Distributed Generation facilities shall own all of the Renewable Energy Credits produced by their facilities.
2. The Commission shall revisit the incentives as part of the California Solar Initiative review process as described here to assess whether or not the goals of Senate Bill 1 and the Self-Generation Incentive Program can be achieved at lower cost to ratepayers through a reduction in the incentive level or schedule.

This order is effective today.

Dated January 11, 2007, at San Francisco, California.

MICHAEL R. PEEVEY
President
DIAN M. GRUENEICH
JOHN A. BOHN
RACHELLE B. CHONG
Commissioners